

REMARKS

Claims 31-59, 61, and 63-64 were pending at the time of the Office action. Claims 31-42 and 46-59 have been withdrawn from consideration. Claims 43-45, 61, and 63-64 stand rejected under 35 U.S.C. § 112, first paragraph. Claims 45, 61, and 64 stand rejected under 35 U.S.C. § 112, second paragraph. Applicants address each of these rejections as follows.

Claim Amendments

Claims 43 and 64 have been amended to feature human precursor cells. Support for this amendment is found, for example, on page 16, line 23, through page 17, line 2, of the specification, as follows (emphasis added):

The present invention will mainly be described with reference to skeletal precursor cells but the invention is not limited thereto. The present invention relates to the use of embryonic markers which identify that certain precursor cells have entered a post-natal differentiation pathway. It[] is believed that the present invention is not limited in any way as to cell type provided they are associated with organisms with differentiated cells. Examples are animals, especially mammals, insects or plants. The present invention is particularly useful with respect to mammalian precursor cells, in particular, skeletal precursor cells, more in particular skeletal precursor *cells of humans* and horses, but is not limited thereto. The present invention makes use of cell embryonic markers which are considered to be available in or on all differentiated cells or precursor cells of such differentiated cells in any differentiated life form. Such embryonic markers are considered to be a necessary part of or to be associated with a necessary part of embryogenesis as the growing organism during differentiation has also the necessity of identifying differentiated or partly differentiated cells and this must be achieved biochemically. Hence, the present invention has wide application.

Claim 43 has further been amended to feature an “isolated” purified homogenous culture of viable, differentiated human precursor cells. Support for this amendment is found, for example, in the title of the present application (“Isolation of precursor cells and their use for tissue repair”) and in the title of Example 1, on page 23, line 22, which refers to the “isolation of skeletal precursor cells from periosteum, synovial membrane, and bone marrow.” Moreover, this term is implicitly present in the claims, as claim 43 features cells “isolated from periosteum, bone marrow, or synovial membrane.”

Claim 64 has been amended to refer to the “absence of expression of a marker” rather than referring to the “absence of expression of a negative marker” to avoid the use of a double negative as suggested by the Examiner. This amendment has been made for purposes of clarity only and it will be understood that by referring to the absence of a marker, reference is indeed made to negative markers as described in the specification.

Claims 44, 45, and 60-63 have been canceled.

The present amendments were made solely to advance prosecution and Applicants reserve the right to pursue canceled subject matter in this or a continuing application. No new matter has been added.

Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 43-45, 61, and 63-64 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. For the following reasons, this

rejection should be withdrawn. The claims, as amended, are directed to an isolated homogeneous culture of viable, differentiated human precursor cells retaining the intrinsic potential of multilineage differentiation. The cells were isolated from periosteum, bone marrow, or synovial membrane, and have entered a post-natal skeletal differentiation pathway leading to the formation of skeletal or connective tissue, wherein the cells express an embryonic marker which is CDMP-1. Dependent claim 64 relates to the absence of (negative) markers (i.e., the absence of markers characteristic of mature chondrocytes such as FGFR3, type II collagen, type IX collagen, type X collagen, type XI collagen, and BMP-2). Accordingly, the scope of the claims has been limited to human cells, which according to the Office Action, the Examiner considers to be the relevant scope of the claims.

Without acquiescence to the Examiner's objections, the claims to therapeutic compositions have been canceled. Accordingly, Applicants submit that the rejection of claims 43-45, 61, and 63-64 under 35 U.S.C. § 112, first paragraph, may now be withdrawn.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 45, 61, and 64 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 45 and 61 have been canceled. Claim 64 has been amended to recite the "absence of expression of a marker" rather than referring to the "absence of

expression of a negative marker” to avoid the use of a double negative as suggested by the Examiner. Accordingly, Applicants submit that the rejection of claims 45, 61, and 64 under 35 U.S.C. § 112, second paragraph, may now be withdrawn.

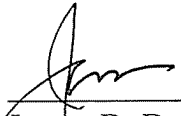
CONCLUSION

Applicants submit that the application is in condition for allowance, and this action is hereby respectfully requested.

Enclosed is a Petition to extend the period for replying to the Office action for 1 month, to and including January 11, 2008. If there are any charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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